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EXAMINER
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PADEN, CAROLYN A

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/563,425  
Filing Date: June 01, 2006  
Appellant(s): YAMAGUCHI ET AL.

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Gerald Murphy  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 17, 2011 appealing from the Office action mailed March 14, 2011.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

Appellant has identified co-pending Application Serial Number 10/513,593 as a related application.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 15-21 are pending in the application.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

3,686003                      van Dorp                      8-1972

Kiritsakis, A. K. 1998. JAOCS 75(6)673-681

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Dorp (3,686,003).

Van Dorp discloses flavoring foods with unsaturated aldehydes. Arachidonic acid (described as an n-6 long chain fatty acid having 20 carbon atoms that may be from vegetable oil in Applicants' Specification on page 5, third and fourth paragraph) is cited as a precursor for the unsaturated aldehyde (example 6). So in this case the unsaturated aldehydes are seen to be the decomposed substance of the composition. The precursors may be incorporated into foods (column 2, lines 30-34) and then oxidized to provide a flavor. Alternatively the precursors are first oxidized to create flavor and then added to foods, as required in claim 17. The flavor produced is described as savory (column 1, line 32). The amount of amount of flavoring used in foods is disclosed at column 3, lines 22-35. Linolenic acid is cited as a precursor for the flavoring agent in example 12. The claims appear to differ from van Dorp in the recitation of the extent precursor used in the food. At column 3, lines 26-28 van Dorp suggests adding enough precursor to provide a sufficient quantity of aldehyde to the composition. It would have been obvious to one of ordinary skill in the art to include enough of the precursor arachidonic acid in a food composition in order to provide an appropriate amount of decomposition product to flavoring the food. Guidance as to the amount of

arachidonic acid needed is provided in example 8, where more than 1% arachidonic acid is used to create flavoring for chicken soup.

The claims also appear to differ in the recitation of a specific composition that consists of vegetable fat and oil and 1% or more of n-6 long-chain highly unsaturated fatty acid as described in claim 15. At column 7, lines 68-72, a composition containing chicken fat, ethanol and 10% arachidonic acid was added to soup and the soup was simmered in water for 7 minutes. Van Dorp compared the taste of this soup with soup with chicken fat that did not contain arachidonic acid and found that the arachidonic acid in the soup enhanced the flavor of the soup. Van Dorp found that chicken fat was not required in any of the previous examples to produce chicken flavor. It is not seen that chicken fat per se is essential to the creation of the flavor of Van Dorp. Van Dorp provides for using bland fat or oil as a diluent at column 3, lines 29-35. It would have been obvious to provide vegetable oil as an alternative diluent for the chicken fat and ethanol for arachidonic acid in the test soup of example 20.

Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Dorp as applied to claims 15-17 above, and further in view of Kiritsakis.

van Dorp further disclosed aldehydes are useful flavoring ingredients (abstract). Flavoring ingredient including aliphatic aldehydes having from 11-17 carbon atoms and 2-4 double bonds are shown in the abstract of van Dorp. Trideca-2,4,7-trienal is cited as one of the products (column 1, line 43). The use of fat or oil as a diluent for the flavoring is disclosed at column 3, lines 29-35.

The claims appear to differ from van Dorp in the preparation of a flavoring ingredient that contains all of the ingredients of the claims that is made by heating the composition. In example 20 the soup is simmered in water for 7 minutes to provide a flavored composition. One of ordinary skill in the art would expect some of the arachidonic acid to decompose to provide the flavorful aldehydes.

Claims 19-20 appears to differ from van Dorp in the recitation of a vegetable oil having specific aldehydes, ketones and alcohols. Kiritsakis teaches that the flavor components of olive oil contain a variety of ketones and alcohols, as shown on table 7. In particular hexanal, heptane-2-one and alcohol are mentioned. It would have been obvious to one of ordinary skill in the art to use olive oil as a diluent for the flavoring of van Dorp to include an olive oil flavor flavoring of van Dorp. It is appreciated that the



specific alcohol of claim 21 is not mentioned but if one of ordinary skill in the art wanted to optimize the flavor of the food, it would have been obvious to modify the flavor with the alcohol of the claim.

### **(10) Response to Argument**

The rejection of Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorp (3,686,003).

Appellant points out that Van Dorp includes ethanol in his mixture with chicken fat and so the composition does not consist of the specific ingredients called for in the claims. This has been considered but does not overcome the rejection. Van Dorp provides for using bland fat or oil as a diluent at column 3, lines 29-35. It would have been obvious to substitute vegetable oil as an alternative diluent for the chicken fat and ethanol for arachidonic acid in the test soup of example 20.

Appellant argues that van Dorp does not use the same process steps as that of the claims because van Dorp includes ethanol and chicken fat. The claims are directed to a process and not to a composition. The method employs the same steps as that of van Dorp. The fact that van

Dorp may use a different diluent in his composition is not seen to overcome the rejection.

Appellant argues that van Dorp uses both ethanol and chicken fat in example 20. When substituting diluents in van Dorp one could only replace either ethanol or chicken fat. This has been considered but is not persuasive. Both ethanol and chicken fat are considered to be diluent ingredients. When looking to simplify the composition of van Dorp, one of ordinary skill in the art would elect to replace both ethanol and chicken fat with vegetable oil.

Appellant argues that the purpose of van Dorp is to improve the natural flavor of chicken. At column 1, lines 30-32 van Dorp seeks to improve the savory flavor of foods. Chicken is not the only food contemplated in van Dorp.

Appellant argues that he has created a Kokumi flavor, described as having thickness, continuity and mouthfulness. This has been considered but it is the examiners' position that savory flavors in foods also have these flavor descriptions.

Appellant argues that the process in van Dorp is different than the process used in the claims. This has been considered. The claims are not

rejected under 35 USC 102. The claims are an obvious variant of the van Dorp process. Applicant urges that the process in van Dorp does not inherently result in the Kokumi of the claims. As discussed above, no difference is seen from the savory flavor in van Dorp and the Kokumi described by Appellant. Both flavors are seen to have the effect of thickness, continuity and mouthfulness.

Appellant has indicated that he has scientifically shown that the different flavors can result from compositions containing arachidonic acid and points to the amendment of July 8, 2010. This Table appears to show a summary of the prior art relating to the flavors of corn oil and arachidonic acid. The table has been considered but is not seen to overcome the rejection. There is no description relating to how the products were prepared or treated or if Kokumi was found in any of the treated oil products. Appellants' arguments are not commensurate in scope with the claims.

Appellant argues that there is no suggestion in van Dorp that changing the diluent would result in a composition that includes aldehydes, ketones and alcohols. This has been considered but the claims do not

require that all of these constituents be present in the composition at the same time.

With regard to claim 16, Appellant argues that van Dorp does not provide an extract as defined in his Specification at page 7, lines 16-20. This has been considered but does not overcome the rejection. Van Dorp contemplates providing an extract at column 2, lines 32-34. Here the flavoring is produced and then purified in some manner for addition to a foodstuff. Although the use of water for extraction is not mentioned, one of ordinary skill in the art would expect to utilize water extraction to obtain the flavoring ingredient because water was used in the extract obtained in example 8, which was isolated by distillation.

The rejection of Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Dorp as applied to claims 15-17 above, and further in view of Kiritsakis.

Appellant argues that there is no suggestion in van Dorp that changing the diluent would result in a composition that includes aldehydes, ketones and alcohols. This has been considered but the claims do not require that all of these constituents be present in the composition at the

same time. Van Dorp contemplates the inclusion of aldehydes and alcohols in the oxidation of arachidonic acid at column 1, lines 63-64.

Appellant argues that olive oil is not bland oil and would not be useful in the process of van Dorp. This has been considered but does not overcome the rejection. Although olive oil may have a flavor, one of ordinary skill in the art could consider the flavor as bland, especially when compared to a spicy oil product. There is not suggestion in van Dorp that the diluent must be inert.

**(11) Related Proceeding(s) Appendix**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Carolyn Paden/

Conferees:

/D. Lawrence Tarazano/

Supervisory Patent Examiner, Art Unit 1781

/Benjamin L. Utech/

Primary Examiner